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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,577	03/31/2004	Georg Wittmann	P2003,0195	9387

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EXAMINER	
QUARTERMAN, KEVIN J	

ART UNIT	PAPER NUMBER
2879	

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/815,577	WITTMANN ET AL.	
	Examiner	Art Unit	
	Kevin Quarterman	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☒ Claim(s) *16* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *31 March 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *0304*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. Figures 1A and 1B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

3. The following title is suggested: --COMPONENT WITH MECHANICAL CONNECTOR, IN PARTICULAR A DISPLAY APPARATUS WITH ORGANIC LIGHT-EMITTING DIODE--.

Claim Objections

4. Claim 16 is objected to because of the following informalities: Claim 16 recites the limitation "an layer" in the second line of the claim. It appears to the Examiner that "an" should be --*a*-- instead. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Ando (US 6,605,893).

7. Regarding independent claim 1, Figure 1A of Ando shows a planar electronic component comprising a substrate layer (202) and a covering layer (201); a functional layer (205) with an optoelectronic configuration or a circuit configuration between the substrate and the covering layer; a sealing frame or sealing ring (210) between the substrate layer and the covering layer, connected to the substrate layer and the covering layer by an integral joint, and surrounding the functional layer and protecting the functional layer against hazardous external influences; a mechanical connector (211) with adhesive characteristics matched to materials of the covering layer and of the substrate, the mechanical connector being disposed between the substrate layer and the covering layer and for fixing the substrate layer and the covering layer in a mechanically robust manner with respect to one another.

8. Regarding claim 2, Ando discloses the mechanical connector (211) adhesively bonding the substrate layer and the covering layer (col. 4, ln. 44-46), which would

reduce the risk of detachment from one another in an event of a deformation of the electronic component.

9. Regarding claim 3, Ando discloses the mechanical connector (211) adhesively bonding the substrate layer and the covering layer (col. 4, ln. 44-46), which would reduce the risk of partial or complete detachment due to one of thermal expansion and mechanical loading of the electronic component.

10. Regarding claim 4, Ando discloses the sealing frame or sealing ring between the substrate layer and the covering layer configured to seal and protect the functional layer (col. 12, ln. 18-46).

11. Regarding claim 5, Ando discloses the sealing frame or sealing ring protecting against oxygen and moisture (col. 12, ln. 37-46).

12. Regarding claim 6, Figure 1A of Ando shows the mechanical connector disposed outside the sealing frame or sealing ring, as seen from the functional layer.

13. Regarding claim 7, Figure 10A shows a plurality of connectors (411, 412) disposed outside a space enclosed by the sealing frame or sealing ring (410) and hosing the functional layer.

14. Regarding claim 8, Figure 1A of Ando shows the mechanical connector disposed in an overlapping area of the substrate and the covering layer.

15. Regarding claim 9, Figure 1A of Ando shows the substrate layer and the covering layer each formed as a quadrilateral in a plan view thereof, and the mechanical connector is one of a plurality of punctiform connecting elements disposed at corners of

an assembly defined by the substrate layer and the covering layer and in between the covering layer and the substrate layer.

16. Regarding claim 10, Figure 1A of Ando shows the assembly having a rectangular outline defined by the substrate layer and the covering layer.

17. Regarding claim 11, Ando discloses the mechanical connector being at least one connection selected from the group consisting of a welded connection, a soldered joint, a screw connection, a rivet, and a bracket (col. 5, ln. 60-63).

18. Regarding claim 12, Ando discloses the mechanical connector being a frame or ring disposed between the substrate layer and the covering layer (col. 2, ln. 22-31), Figure 10A of Ando shows a mechanical connector (411) between the functional layer (405) and a sealing frame or sealing ring (412).

19. Regarding claim 13, Figure 10A of Ando shows the mechanical connector (411) comprising connectors selected from the group consisting of reinforcing strips and points disposed between the substrate layer (402) and the covering layer (401) and outside a space defined by the sealing frame or sealing ring (410) and enclosing the functional layer.

20. Regarding claim 14, Figure 10B of Ando shows the reinforcing strips formed with interruptions.

21. Regarding claim 15, Figure 10B of Ando shows the reinforcing frame or ring formed with interruptions.

22. Regarding claim 16, Figure 1A of Ando shows the functional layer (205) being a layer.

23. Claims 1-5, 8, 10, 12, and 16-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Kim (US 6,850,006).

24. Regarding independent claim 1, Figure 5 of Kim shows a planar electronic component comprising a substrate layer (31) and a covering layer (32); a functional layer (30) with an optoelectronic configuration or a circuit configuration between the substrate and the covering layer; a sealing frame or sealing ring (34) between the substrate layer and the covering layer, connected to the substrate layer and the covering layer by an integral joint, and surrounding the functional layer and protecting the functional layer against hazardous external influences; a mechanical connector (33) with adhesive characteristics matched to materials of the covering layer and of the substrate, the mechanical connector being disposed between the substrate layer and the covering layer and for fixing the substrate layer and the covering layer in a mechanically robust manner with respect to one another.

25. Regarding claim 2, Kim discloses the mechanical connector bonding the substrate layer and the covering layer (col. 3, ln. 1-3), which would reduce the risk of detachment from one another in an event of a deformation of the electronic component.

26. Regarding claim 3, Kim discloses the mechanical connector bonding the substrate layer and the covering layer (col. 3, ln. 1-3), which would reduce the risk of partial or complete detachment due to one of thermal expansion and mechanical loading of the electronic component.

27. Regarding claim 4, Kim discloses the sealing frame or sealing ring between the substrate layer and the covering layer configured to seal and protect the functional layer (col. 2, ln. 54-65).

28. Regarding claim 5, Kim discloses the sealing frame or sealing ring protecting against oxygen and moisture (col. 3, ln. 1-3).

29. Regarding claim 8, Figure 5 of Kim shows the mechanical connector disposed in an overlapping area of the substrate and the covering layer.

30. Regarding claim 10, Figure 5 of Kim shows the assembly having a rectangular outline defined by the substrate layer and the covering layer.

31. Regarding claim 12, Figure 5 of Kim shows the mechanical connector being a frame or ring disposed between the substrate layer and the covering layer and between the functional layer and a sealing frame or sealing ring.

32. Regarding claim 16, Figure 5 of Kim shows the functional layer (30) being a layer.

33. Regarding independent claim 17, Figure 5 of Kim shows an OLED display device comprising a substrate layer (31) and a covering layer (32); an organic light-emitting layer (30) between the substrate layer and the covering layer; a sealing frame or sealing ring (34) between the substrate layer and the covering layer, connected to the substrate layer and the covering layer by an integral joint, and defining a space encasing and protecting the organic light-emitting layer against hazardous external influences; and a mechanical connector (33) with adhesive characteristics matched to materials of the covering layer and of the substrate layer disposed between the substrate layer and the

covering layer, for mechanically fixing the substrate layer and the covering layer to one another.

34. Regarding claim 18, Kim discloses the mechanical connector being configured to maintain an internal space high enough to protect the organic light-emitting layer from external impacts and large enough to accommodate a moisture absorbent therein (col. 3, ln. 1-3).

Conclusion

35. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. McCormick (US 6,936,131) discloses an encapsulation of organic electronic devices using absorbent load adhesives. Silvernail (US 6,888,307) discloses a patterned oxygen and moisture absorber for organic optoelectronic devices. Kim (US 6,624,472) discloses an organic electroluminescence display panel. Onitsuka (US 6,049,167) discloses an organic electroluminescent display device. Inoguchi (US 6,262,531) discloses a thin-film EL display panel. McKenna (US 4,810,931) discloses a fill fluid for TFEL display panels.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Quarterman whose telephone number is (571) 272-2461. The examiner can normally be reached on M-TH (7-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin Quarterman
Examiner
Art Unit 2879

kq
13 March 2006

Joseph Williams
Primary Examiner
Art Unit 2879